

9/21/90

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION II

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IN THE MATTER OF

Kin-Buc Landfill, Edison,
New Jersey:

Anthony Gaess,
Marvin Mahan,
Robert Meagher,
Earthline Company,
Chemical Waste Management, Inc.,
Filcrest Realty, Inc.,
Inmar Associates, Inc.,
Kin-Buc Inc.,
SCA Services, Inc.,
SCA Services of Passaic, Inc.,
Transtech Industries, Inc.,
f/k/a Scientific Inc., and
Wastequid, Inc.

Respondents.

Proceeding Pursuant to §106(a)
of the Comprehensive Environmental
Response, Compensation, and
Liability Act of 1980, as amended,
42 U.S.C. §9606(a).

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ADMINISTRATIVE ORDER

Index No.
II-CERCLA-00114

I. JURISDICTION

A. This Amended Administrative ORDER ("Amended ORDER" or "ORDER") is issued to the above-captioned Respondents pursuant to the authority vested in the President of the United States under Section 106(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended (CERCLA), 42 U.S.C. §9606(a), which authority was delegated to the Administrator of the United States Environmental Protection Agency (EPA) by Executive Order 12580, dated January 23, 1987, and duly redelegated to the Regional Administrator of EPA, Region II. Notice of this Amended ORDER has been provided to the New Jersey Department of Environmental Protection ("DEP") pursuant to Section 106(a) of CERCLA, 42 U.S.C. §9606(a).

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B. This Amended ORDER amends portions of the Administrative Orders bearing Docket Nos. II-CERCLA-30102 and II-CERCLA-60105 issued September 23, 1983 and March 25, 1986, respectively, by the Regional Administrator, EPA Region II. This Amended ORDER amends those portions of EPA Order No. II-CERCLA-30102 which are inconsistent with the requirements of this ORDER. This Amended ORDER also amends those portions of EPA Order II-CERCLA-60105 which are inconsistent with the provisions of this ORDER. Provided, that, for purposes of enforcement of the requirements of EPA Orders Nos. II-CERCLA-30102 and II-CERCLA-60105, including accrual of penalties pursuant to 42 U.S.C §9606(a) with respect to those Orders, the specification of a date in this Amended ORDER for the performance of any task does not, and is not intended to, negate, supercede, abolish, or otherwise excuse any deadlines, schedules, or performance requirements in effect prior to the effective date of this Amended ORDER (including dates by which performance was to have been achieved) specified in EPA Order No. II-CERCLA-30102, EPA Order No. II-CERCLA-60105, the Operable Unit I RD/RA Work Plan, or the Operable Unit II RI/FS Work Plan.

II. DEFINITIONS

As used in this ORDER, unless the context clearly requires some other meaning, the following terms shall have the following meanings:

A. CERCLA shall mean the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended by the Superfund Amendments and Reauthorization Act of 1986, 42 U.S.C. §9601 et seq.

B. EPA shall mean the United States Environmental Protection Agency, Region II.

C. The Kin-Buc Site or the Site shall mean the facility, as that term is defined in Section 101(9) of CERCLA, 42 U.S.C. Section 9601(9) (including the real property and all structures, soil and containers thereon) which is located at 383 Meadow Road, Edison, New Jersey, and commonly known as the Kin-Buc Sanitary Landfill.

D. DEP shall mean the New Jersey Department of Environmental Protection.

E. Hazardous substance shall mean any substance that falls within the definition of a "hazardous substance" as that term is defined in Section 101(14) of CERCLA, 42 U.S.C. §9601(14), and shall also mean any mixture(s) containing any such hazardous substance(s) at any concentration.

F. Facility Coordinator shall mean the person designated by the Respondents who will be charged with the duty of being at all times knowledgeable of the performance of all work performed pursuant to this ORDER.

G. National Contingency Plan or NCP shall mean the National Oil and Hazardous Substances Pollution Contingency Plan promulgated by EPA pursuant to Section 105 of CERCLA, 42 U.S.C. §9605, at 40 C.F.R. Part 300 et seq., and all amendments or modifications thereto.

H. Operable Unit I ROD shall mean the Record of Decision for the First Operable Unit at the Site, specifying remedial measures for source control, which was signed by the Regional Administrator of EPA Region II on September 28, 1988, and which selected the remedy for the First Operable Unit at the Site.

I. Operable Unit I RD/RA shall mean the Remedial Design and Remedial Action for the First Operable Unit at the Site, consisting of design and construction of source control measures and post-remedial monitoring, operation and maintenance in accordance with the Operable Unit I ROD.

J. Operable Unit II RI/FS shall mean the Remedial Investigation and Feasibility Study for the Second Operable Unit to determine the nature and extent of contamination at the Site and any off-site impacts resulting from contaminant migration from the Site.

K. Respondents shall mean each individual and corporation named in the caption to this ORDER, including each corporation's officers, employees, agents, assigns, and successors.

L. Unless otherwise specified herein, all terms used herein shall have their ordinary meanings except that those terms defined under Section 101 of CERCLA, 42 U.S.C. Section 9601, shall have the meanings specified therein.

III. PARTIES BOUND

A. This ORDER shall apply to and be binding upon each and every Respondent, its principals, officers, agents, directors, employees, assigns, and successors. Respondents are jointly and severally responsible for carrying out all activities required by this ORDER. No change in the ownership, corporate status, or other control of any Respondent shall alter any of that Respondent's obligations under this ORDER.

B. Respondents shall provide a copy of this ORDER to any prospective owner or successor before a controlling interest in any Respondent's assets, property rights or stock are transferred to that prospective owner or successor. Respondents shall provide

a copy of this ORDER to each contractor, sub-contractor, laboratory, or consultant retained to perform any services under this ORDER, within fifteen (15) calendar days after the effective date of this ORDER or on the date of such retainer, whichever date occurs later. Respondents shall also provide a copy of this ORDER to each person representing any Respondent with respect to the Site or response action conducted pursuant to this ORDER, and shall condition all contracts and subcontracts entered into hereunder upon performance of all such response actions in conformity with the terms of this ORDER. With regard to the activities undertaken pursuant to this ORDER, each contractor and subcontractor shall be deemed to be related by contract to the Respondents within the meaning of Section 107(b)(3) of CERCLA, 42 U.S.C. Section 9607(b)(3). Notwithstanding the terms of any contract, Respondents are responsible for compliance with this ORDER and for ensuring that their contractors, subcontractors and agents comply with this ORDER, and perform all activities in accordance with this ORDER.

C. Within fifteen (15) calendar days after the effective date of this ORDER each Respondent that owns real property comprising all or part of the Site shall record a copy or copies of this ORDER in the appropriate governmental office where land ownership and transfer records are filed or recorded, and shall ensure that the recording of this ORDER is indexed to the titles of each and every property at the Site so as to provide notice to third parties of the issuance and terms of this ORDER with respect to those properties. Respondents shall, within twenty (20) calendar days of the effective date of this ORDER, send notice of such recording and indexing to EPA.

D. Not later than sixty (60) calendar days prior to any transfer by any Respondent of any real property interest in any property included within the Site, Respondents shall submit a true and correct copy of all transfer documents to EPA, and shall identify the transferee by name, principal business address and effective date of the transfer.

IV. FINDINGS

1. This Amended ORDER incorporates by reference the findings of EPA Order Docket No. II-CERCLA-30102 and EPA Order Docket No. II-CERCLA-60105 in their entirety.

2. The Site consists of two major mounds and one minor mound. The larger of the two major mounds, designated Kin-Buc I, covers approximately 30 acres and rises to a maximum elevation of 93 feet. The other major mound, designated Kin-Buc II, covers approximately 12 acres, rises to a maximum elevation of 51 feet and is located just north of Kin-Buc I. The low lying minor mound covers approximately 9 acres, rises 15 to 20 feet high and

is designated as Mound B. Mound B lies west-southwest of Kin-Buc I, across the Edison Township Municipal Landfill access road and adjacent to the Raritan River. Three pits of black, oily leachate have developed at the southeastern edge of Kin-Buc I and are known as Pits A, B, and C. Adjacent to the pits is an impounded area of tidally affected water referred to as Pool C. A fenced storage area currently utilized as part of an on-going removal action is next to Pool C. Marsh land to the east of Pool C is cut by numerous mosquito drainage channels, with its major drainage feature being Edmonds Creek, a tidally affected shallow stream that flows into the Raritan River to the south of Kin-Buc I. Pool C is connected to Edmonds Creek by a small channel. Mill Brook, located northwest of the Site, flows into Martins Creek, which has been partially filled in by Kin-Buc II. Flowing west, Martins Creek runs into the Raritan River just north of Mound B.

3. EPA has determined that the Site shall be remediated in operable units. Operable Unit I addresses source control measures for the Site. Operable Unit II addresses on-site or off-site impacts, including any soil, groundwater, or aquifer contamination, resulting from contaminant migration at or from the Site.

4. In September 1988, EPA issued a Record of Decision selecting a remedy for Operable Unit I (hereinafter "Operable Unit I ROD") which is attached hereto as Appendix A and incorporated by reference as if fully set forth herein.

5. Oily phase leachate containing polychlorinated biphenyls ("PCBs") has migrated from Kin-Buc I into the refuse in the low lying area between Kin-Buc I and the Edison Landfill, and flow patterns indicate the potential for the continued migration of this leachate toward the marsh area to the east and to the Raritan River west of the Site.

6. Pool C is the source of PCB contamination found in the sediments of Edmonds Creek, and the primary source of contamination in Pool C is Kin-Buc I. Leachate at the Site can be separated into two phases: an oily phase and an aqueous phase. Sampling and analysis of these two phases of leachate indicate that the oily phase leachate is contaminated with PCBs (up to 5,822 parts per million ("ppm")), and the aqueous phase contains hazardous substances including, but not limited to, metals, volatile organics, base neutral compounds, acid extractable compounds, PCBs, pesticides, and cyanide.

7. There are five stratigraphic units of concern at the Site: the first unit is the solid waste/fill material of the landfill itself; the second is the meadow marsh mat which immediately underlies the southern two-thirds of Kin-Buc I; and third is the sand and gravel layer which lies under the meadow marsh mat and

also underlies the southern two-thirds of Kin-Buc I. Finally, two bedrock formations lie below the sand and gravel layer. Only the sand and gravel and the bedrock formations are considered aquifers.

8. Contaminant concentration ranges developed from 84 samples taken between 1976 and 1984 from the sand and gravel aquifer reveal the following:

- a. the presence of heavy metals including, but not limited to, lead (up to 2.7 ppm), chromium (up to 0.64 ppm), and zinc (up to 137 ppm); and
- b. the presence of 39 organic priority pollutants including, but not limited to benzene, chlorobenzene, 4-methyl-2-pentanone, phenol, and toluene which were detected at concentrations greater than 10 ppm; other compounds detected include but are not limited to vinyl chloride (up to 190 parts per billion or "ppb"), tetrachloroethene (up to 1.8 ppm), and 1,2-trans-dichloroethene (up to 5.4 ppm).

9. At the time of issuance of the Operable Unit I ROD, a limited number of wells had been screened in the bedrock aquifer. Comparison of the upgradient versus downgradient wells in this aquifer indicates an increase in the number and frequency of organic priority pollutants detected (i.e., two contaminants in upgradient wells versus nine contaminants in downgradient wells). Benzene, chloroethane, 1,1-dichloroethane, ethyl benzene, tetrachloroethene, toluene, and trichloroethene were detected in downgradient wells, but not detected in upgradient wells.

10. The Operable Unit I ROD states that "the nature and extent of bedrock aquifer contamination is not adequately characterized based on the data gathered to date. The nature and extent of contamination in this aquifer will be a subject of the Supplemental Remedial Investigation" (hereinafter "Operable Unit II RI/FS").

11. The health effects of some of the contaminants identified at the Site are summarized as follows:

- a. Benzene is a known human carcinogen, causing leukemia in exposed individuals. Benzene also adversely affects the human blood producing system. In both humans and animals, benzene exposure is associated with chromosomal damage. Benzene is fetotoxic and causes embryoletality in experimental animals.
- b. PCBs are very persistent in the natural environment and are readily bioaccumulated. PCBs are carcinogenic in rats and mice. In humans, exposure to PCBs has been associated with chloracne, impairment of liver function, minor birth abnormalities, and an increased incidence of cancer. Experimental animals exposed to

PCBs experienced an increased incidence of cancer; reproductive problems, neurobehavioral degradation; pathological changes in the liver, stomach, skin, and other organs; and suppression of immunological function.

c. Tetrachloroethene (PCE) induced liver tumors when administered orally to mice and was found to be mutagenic using a microbial assay system. Reproduction toxicity was observed in pregnant rats and mice when exposed to high concentrations. Animals exposed by inhalation to PCE exhibited liver, kidney, and central nervous system damage.

d. Trichloroethene (TCE) induced hepatocellular carcinomas in mice and was mutagenic when tested using several microbial assay systems. Chronic inhalation exposure to high concentrations caused liver, kidney, and neural damage and dermatological reactions in animals.

e. Vinyl chloride is a human carcinogen that causes angiosarcomas of the liver and tumors of the brain, lung, and hemolymphopoietic system. Chronic human exposure to vinyl chloride is associated with multiple systemic disorders, including a sclerotic syndrome, acro-osteolysis, and liver damage. Chronic exposure by animals can result in lesions of the liver, kidneys, spleen, and lungs.

12. Chromium, benzene, PCBs, tetrachloroethene, 1,1-dichloroethane, trichloroethene, ethylbenzene, vinyl chloride, and toluene are "hazardous substances" within the meaning of Section 101(14) of CERCLA, 42 U.S.C. §9601(14).

13. The potential exists for future migration of hazardous substances from the Site into Edmonds Creek, Mill Brook/Martins Creek, the Raritan River, and into the soil, groundwater and aquifers at, adjacent to and beneath the Site.

14. Potential pathways of exposure to hazardous substances at the Site by human or other receptors include soil ingestion, surface and groundwater ingestion, and consumption of biota due to bioaccumulation of Site contaminants. Exposure to such hazardous substances may lead to the adverse health effects listed above.

15. In order to fully determine the nature and extent of contamination at the Site and to evaluate appropriate remedial alternatives for the Second Operable Unit at the Site, EPA has determined that a Remedial Investigation and Feasibility Study for Operable Unit II ("Operable Unit II RI/FS") must be conducted in conformance with CERCLA, including but not limited to Sections 104 and 121, 42 U.S.C. §9604 and §9621, and the National Oil and Hazardous Substance Pollution Contingency Plan ("National Contingency Plan" or "NCP"), 40 CFR Part 300 et seq., and amendments thereto.

16. A response action of the type contemplated by the NCP is required for the First Operable Unit at the Site to prevent and/or mitigate the actual or potential threat of harm to human health or welfare or the environment caused by the release and threatened release of hazardous substances from the Site. A remedial alternative for response action to address source control at the Site has been selected and documented in the Operable Unit I ROD.

17. On or about February 20, 1989, Respondents submitted through their consultant, Wehran Engineering Corporation (hereinafter "Wehran" or the "consultant") the "Preliminary Draft Work Plan for the Kin-Buc Landfill Operable Unit II Remedial Investigation/Feasibility Study" (hereinafter the "February Draft RI/FS Work Plan").

18. In January 1989, Respondents submitted through Wehran the "Preliminary Draft Work Plan for Operable Unit I Remedial Design/Remedial Action" (hereinafter the "January Draft RD/RA Work Plan").

19. By letter dated February 24, 1989, EPA transmitted comments concerning the January Draft RD/RA Work Plan to Respondents and requested that the revised Work Plan incorporating EPA's comments be submitted by March 17, 1989.

20. By letter dated March 29, 1989 EPA transmitted comments concerning the February Draft RI/FS Work Plan to Respondents. EPA requested the Work Plan be revised and submitted by April 14, 1989.

21. At a meeting on April 4, 1989, Respondents agreed to submit the following documents: the Operable Unit I Revised RD/RA Work Plan, to be submitted by April 14, 1989; the Operable Unit II Revised RI/FS Work Plan, to be submitted by May 1, 1989; and the Sampling & Analysis Plan (for Operable Units I and II), to be submitted by May 15, 1989.

22. On May 2, 1989 Wehran submitted the April 1989 "Draft Work Plan for Operable Unit II RI/FS" (hereinafter the "April 1989 Draft RI/FS Work Plan").

23. By letter dated June 15, 1989, EPA transmitted comments concerning the April 1989 Draft RI/FS Work Plan and requested a revised Work Plan incorporating EPA's comments be submitted.

24. By letter dated July 14, 1989, Wehran submitted a Revised Work Plan for the Operable Unit II RI/FS (hereinafter "July 1989 Draft RI/FS Work Plan").

25. By letter dated September 22, 1989, EPA approved the July 1989 Draft Work Plan, subject to certain revisions and conditions specified in that letter. Such revisions included, but were not limited to, dates by which the Draft RI Report and the Draft FS Report for Operable Unit II were to be submitted. By that letter, EPA requested that the Draft FS Report be submitted within twelve weeks of the date the Draft RI Report was due.

26. By letter dated October 31, 1989, EPA approved Respondents' proposal to submit the Draft FS Report within seventeen weeks following the date the Draft RI Report is to be submitted to EPA.

27. Respondents prepared and submitted through Wehran the "Final Work Plan for Kin-Buc Landfill Operable Unit II Remedial Investigation and Feasibility Study" by letter dated October 20, 1989 (hereinafter the "Final Operable Unit II RI/FS Work Plan" or "RI/FS Work Plan"). Certain amendments to the schedule contained in the RI/FS Work Plan were later made by EPA at the request of Respondents. The RI/FS Work Plan, as amended, is hereby incorporated by reference as if fully set forth herein.

28. By letter dated June 29, 1989, Wehran submitted on behalf of Respondents the "Draft Sampling and Analysis Plan for Operable Unit II Remedial Investigation/Feasibility Study and Operable Unit I Remedial Design/Remedial Action" (hereinafter "Draft SAP").

29. By letter dated August 18, 1989, EPA transmitted comments concerning the Draft SAP.

30. By letter dated September 22, 1989, Wehran submitted to EPA the "Draft Sampling and Analysis Plan for Kin-Buc Landfill Operable Unit II Remedial Investigation/Feasibility Study and Operable Unit I Remedial Design/Remedial Action, June 1989 (Revised September 1989)" (hereinafter "September Draft SAP").

31. By letter dated October 24, 1989, EPA approved the September 1989 Draft SAP subject to certain revisions and conditions as specified in that letter.

32. By letter dated December 1, 1989, Respondents submitted through Wehran the Final Sampling and Analysis Plan (hereinafter the "Final SAP" or "SAP"). The SAP is hereby incorporated by reference as if fully set forth herein.

33. On April 13, 1989, Wehran submitted on behalf of Respondents the "Preliminary Draft Work Plan for Operable Unit I RD/RA" (hereinafter "April Draft RD/RA Work Plan").

34. On May 18, 1989, EPA transmitted comments concerning the April Draft RD/RA Work Plan. By that letter, EPA required that Respondents revise certain portions of the work plan in

accordance with EPA's comments and submit them with a cover letter to EPA for review. EPA's letter further stated that, following its review, EPA would approve the plan with the appropriate changes, at which time Respondents would be required to submit a Final RD/RA Work Plan to EPA, incorporating all changes required by EPA.

35. In June 1989, Wehran submitted on behalf of Respondents the "Draft Work Plan for Operable Unit I RD/RA (hereinafter the "June Draft RD/RA Work Plan").

36. On August 30, 1989, EPA met with Respondents and Wehran to discuss the schedule contained in the June Draft RD/RA Work Plan. As a result of that meeting, on September 18, 1989, Respondents submitted through Wehran a revised schedule detailing the completion of RD/RA activities. As noted in Wehran's cover letter, the schedule reflected the revisions discussed and agreed to during the August 30, 1989 meeting and constituted a revision to the June Draft RD/RA Work Plan.

37. By letter dated March 5, 1990, EPA transmitted approval of the June Draft RD/RA Work Plan, as revised by Wehran by letters dated October 26, 1989 and January 20, 1990.

38. Respondents prepared and submitted through Wehran the "Final Work Plan for Kin-Buc Landfill Operable Unit I Remedial Action/Remedial Design" in March 1990 (hereinafter the "Final Operable Unit I RD/RA Work Plan" or "RD/RA Work Plan"). The RD/RA Work Plan is hereby incorporated by reference as if fully set forth herein.

39. Respondents either failed to submit or submitted excessively late, without any time extensions having been granted by EPA, a number of documents required by schedules approved by EPA or contained in the RI/FS Work Plan or the RD/RA Work Plan, including those listed in paragraphs 40 through 51, below.

40. The "Subsurface Investigation Along Clay Cut-Off Wall Alignment," due on November 1, 1989, was not submitted by Respondents until July 16, 1990.

41. The report addressing the task to "Evaluate the Suitability of On-Site Clay for Cap Material," due on December 15, 1989, was not submitted by Respondents until July 16, 1990.

42. The report addressing the task to "Evaluate the Areal Extent of Contamination to Select the Horizontal Wall Alignment," due on June 15, 1990, was not submitted by Respondents until August 9, 1990.

43. The report addressing the task to "Evaluate Pumping Requirements for Sand and Gravel Aquifer," due on May 15, 1990, has never been submitted by Respondents.
44. The report addressing the task to "Refine Aqueous and Oil Collection Estimates," due on July 1, 1990, has never been submitted by Respondents.
45. The report addressing the task to "Evaluate the Integrity of the Existing Kin-Buc I Final Cover/Cap," due on January 15, 1990, has never been submitted by Respondents.
46. The report addressing the task to "Determine Location of On-Site Treatment Facility," due on May 15, 1990, has never been submitted by Respondents.
47. The report addressing the task to "Evaluate Alternatives and Prepare Plan for Treatability Study," due on August 1, 1990, has never been submitted by Respondents.
48. The report addressing the task to "Assess the Potential Impact to Wetlands from Remedial Construction," due on May 15, 1990, has never been submitted by Respondents.
49. The Clay Cut-Off Wall Remedial Design Preliminary Construction Plans and Specifications, due on October 15, 1989, has never been submitted by Respondents.
50. The "Description of Current Situation and Remedial Action Objectives" (Chapter 1 of the FS), due on August 31, 1990, has never been submitted by Respondents.
51. The Draft Remedial Investigation Report, due on August 31, 1990, has never been submitted by Respondents.

V. CONCLUSIONS

- A. The Site is a "facility" within the meaning of that term as defined in Section 101(9) of CERCLA, 42 U.S.C. §9601(9).
- B. Many of the chemicals and substances referred to in the FINDINGS section, above, which are located at or migrating from the Site are "hazardous substances" within the meaning of that term as defined in Section 101(14) of CERCLA, 42 U.S.C. §9601(14).
- C. The presence of hazardous substances at the Site and the migration of hazardous substances at or from the Site, as described in the FINDINGS, above, are "releases" of a hazardous substance within the meaning of Sections 101(22) and 104(a) of CERCLA, 42 U.S.C. Sections 9601(22) and 9604(a). Each such

release of each hazardous substance at and from the Site is also an "actual...release of a hazardous substance from a facility" as that phrase is used in Section 106(a) of CERCLA, 42 U.S.C. §9606(a).

D. The actual or potential migration of hazardous substances at or from the Site into Edmonds Creek, Mill Brook/Martins Creek, the Raritan River, and into the soils, groundwater, and aquifers at, adjacent to, or beneath the Site, as described in the FINDINGS, above, constitutes a "threatened release of a hazardous substance from a facility" within the meaning of Section 101(22) and 106(a) of CERCLA, 42 U.S.C. Sections 9601(22) and 9606(a). Each such actual or potential migration of a hazardous substance at or from the Site also constitutes a "substantial threat" of a release of a hazardous substance into the environment, within the meaning of Section 104(a)(1)(A) of CERCLA, 42 U.S.C. Section 9604(a)(1)(A).

E. Each and every Respondent to this ORDER is a "person" as that term is defined in Section 101(21) of CERCLA, 42 U.S.C. §9601(21).

F. Each and every Respondent to this ORDER is jointly and severally liable, under one or more subsections of Section 107(a) of CERCLA, 42 U.S.C. §9607(a), for all EPA response costs incurred by the Federal government relating to the Site.

VI. DETERMINATIONS

A. Based upon the FINDINGS set forth above, EPA has determined that the release and threatened release of hazardous substances into the environment at and from the Site may present an imminent and substantial endangerment to the public health or welfare or the environment within the meaning of Section 106(a) of CERCLA, 42 U.S.C. §9606(a).

B. Response actions of the types contemplated by the NCP, 40 C.F.R. Part 300, Subpart E, are required at the Site to fully determine the nature and extent of contamination at and from the Site and to prevent or mitigate any actual or potential threat of harm to human health or welfare or the environment caused by the release and threatened release of hazardous substances at and from the Site.

C. The response actions described in and which are the subject of the Final Operable Unit I RD/RA Work Plan and the Final Operable Unit II RI/FS Work Plan (both incorporated herein by reference) are cost effective and are consistent with achieving a permanent remedy at the Site.

VII. ORDER

Based on the foregoing FINDINGS, CONCLUSIONS and DETERMINATIONS, it is hereby ordered that each and every Respondent identified in the caption of this ORDER undertake response actions at the Site in accord with all of the terms, provisions and schedules stated below. It is hereby ordered that Respondents shall undertake a Remedial Investigation and Feasibility Study ("RI/FS") for Operable Unit II and Remedial Design and Remedial Action ("RD/RA") for Operable Unit I with respect to the Site in accordance with the requirements set forth below. All activities required by this ORDER shall be completed as soon as possible even though maximum time periods for their completion are set forth in Attachments A and B to this ORDER.

A. Facility Coordinator and EPA Remedial Project Manager.

1. A qualified Facility Coordinator, designated by Respondents, shall be available for contact by EPA throughout all phases of the work required by this ORDER and until all the actions required by this ORDER are completed.

2. The Facility Coordinator shall be responsible for oversight of the implementation of this ORDER, including all activities required herein. The Facility Coordinator shall also be the primary contact person for communications with EPA and DEP technical personnel. All communications transmitted by EPA to the Facility Coordinator shall be deemed received by and shall be deemed to be notice to all of the Respondents who perform the actions required by this ORDER. Copies of all correspondence and writings from the Respondents to EPA shall also be directed to the Facility Coordinator.

3. The Respondents shall submit the name, title, address, and telephone number of the Facility Coordinator and a description of his or her professional experience and qualifications for this position in writing to the EPA Project Manager for the Site and the state contact identified below within ten calendar (10) days of the effective date of this ORDER. The Facility Coordinator shall have sufficient technical and managerial expertise and qualifications to adequately oversee and manage all aspects of the work contemplated by this ORDER. The Facility Coordinator shall not be an attorney nor shall he or she be a counsel for any or all of the Respondents.

4. EPA reserves the right to reject any Facility Coordinator proposed by the Respondents if it judges him or her to be unqualified for that position. In that event, the Respondents shall submit to EPA the name and qualifications of a new Facility Coordinator within ten (10) calendar days of EPA's notice of rejection of Respondents' Facility Coordinator.

5. EPA has the unreviewable right to select, and, at any time, to change, a Remedial Project Manager ("RPM") for the Site. If EPA changes its RPM, EPA will inform Respondents in writing of the name, business address, and telephone number of the new RPM. EPA's RPM is Kimberly O'Connell, Emergency and Remedial Response Division, U.S. Environmental Protection Agency, 26 Federal Plaza, Room 747, New York, New York 10278; telephone: (212) 264-8127.

6. EPA's RPM shall have all the authority vested in a Remedial Project Manager ("RPM") and On-Scene Coordinator ("OSC") by the National Contingency Plan ("NCP"), 40 C.F.R. Part 300. EPA's RPM shall have the authority, consistent with the NCP, to halt any work required by or performed pursuant to this ORDER, and to take or direct any necessary response action.

B. Written Commitment to Comply

1. Within ten (10) calendar days of the effective date of this ORDER, Respondents shall submit to EPA a signed, unconditional and unequivocal written commitment to comply with and to perform all of the work required under this ORDER, including implementation of all components of the Operable Unit I RD/RA and the Operable Unit II RI/FS in accordance with the schedules set forth in this ORDER and any and all attachments or amendments thereto.

2. Such written commitment shall contain, in addition, the following:

a. The names, addresses and telephone numbers of all general contractors, subcontractors and all other major contractors who will be performing work at the Site pursuant to the terms of this ORDER, to the extent they are known as of the date the commitment is sent to EPA, and an identification of the tasks that each will be performing at the Site;

b. A Health and Safety Plan which is in accord with all applicable federal regulations;

c. The curriculum vitae of all non-attorney professionals who will be performing work for the Respondents under this ORDER, including all professional engineers, geologists, soil and foundation specialists, architects, civil engineers and design engineers;

d. A commitment by Respondents to obtain a performance bond or provide other financial assurance in accordance with 40 C.F.R. §264.143 and acceptable to EPA, which shall be adequate to ensure that all of the response actions required by this ORDER will be satisfactorily completed in the event of any default in

performance by any or all of the Respondents. Such performance bond or financial assurance shall be provided to EPA within thirty (30) calendar days of the effective date of this ORDER.

3. If Respondents fail or refuse to unequivocally and unconditionally commit to comply with this ORDER as specified in this provision, Respondents shall be deemed to be in violation of this provision of this ORDER for such failure or refusal, and to be subject to penalties pursuant to Section 106(b) of CERCLA for each day thereafter that Respondents continue to violate this provision, in addition to penalties for noncompliance with any other provision of this ORDER and liability for treble damages pursuant to Section 107(c) of CERCLA.

C. Implementation of RD/RA Work Plan.

1. The Respondents shall implement the work specified in the RD/RA Work Plan. The RD/RA Work Plan shall be deemed incorporated into and made an enforceable part of this ORDER. All work shall be conducted in accordance with the National Contingency Plan, the EPA Superfund Remedial Design and Remedial Action Guidance, the Final SAP, and other applicable guidance or guidelines, and the requirements of this ORDER, including the standards and specifications contained in the RD/RA Work Plan, and the schedules contained in Attachment A to this ORDER, which is hereby incorporated as if fully set forth herein. All documents, reports or other deliverables past due in accordance with schedules contained in the RD/RA Work Plan which have not been submitted to EPA by the effective date of this ORDER, shall be submitted to EPA by Respondents within fifteen (15) days of the effective date of this ORDER.

2. Within thirty (30) days of completion of all construction components of the Operable Unit I Remedial Action, the Respondents shall submit to EPA the "as built" engineering drawings which depict all of the facilities and systems constructed under this ORDER.

3. Within sixty (60) days of completion of construction, the Respondents shall submit a Draft Remedial Action Report to EPA which includes a Notice of Completion by the Respondents that all components of the Operable Unit I Remedial Action (except for operation and maintenance and long-term monitoring) have been completed in compliance with the terms set forth in the Final Operable Unit I RD/RA Work Plan, the Final Design, and this ORDER.

4. The Draft Remedial Action Report submitted to EPA by the Respondents shall also include, but shall not necessarily be limited to, the following:

a. Verification that all remedial equipment has been dismantled and removed from the Site;

b. The results of all verification sampling and analysis to document that the Site has been remediated according to the specifications in the Final Design, the ROD, and this ORDER;

c. Verification that the Site has been graded and revegetated according to the specifications in the Final Operable Unit I RD/RA Work Plan; and

d. Documentation that all other terms or specifications contained in the Final Design have been conducted satisfactorily in accordance with the ROD and this ORDER.

5. EPA will review the Draft Remedial Action Report in accordance with the submissions review procedures of this ORDER.

D. Performance of the RI/FS

1. Respondents shall perform the Operable Unit II RI/FS in conformance with the RI/FS Work Plan, the Final SAP, the National Contingency Plan, the EPA Superfund Remedial Investigation and Feasibility Study Guidance, and other applicable guidance or guidelines, and the schedules contained in Attachment B to this ORDER, which is hereby incorporated as if fully set forth herein. The RI/FS Work Plan shall be deemed incorporated into and made an enforceable part of this ORDER. All documents, reports or other deliverables past due in accordance with the schedules contained in the RI/FS Work Plan which have not been submitted to EPA by the effective date of this ORDER, shall be submitted to EPA by Respondents within fifteen (15) days of the effective date of this ORDER.

2. Respondents shall complete all activities specified in the approved Final SAP and, in conformance with the schedule contained in Attachment B hereto, shall submit to EPA for review and approval a draft report detailing the results of the RI ("Draft RI Report").

3. EPA will review the Draft RI Report in accordance with the submissions review procedures set forth in this ORDER.

4. In accordance with the schedule contained in Attachment B, hereto, Respondents shall submit to EPA for review an FS report ("Draft FS Report") which shall include a recommended remedial alternative and a conceptual design of that alternative.

5. EPA will review the Draft FS Report in accordance with the submissions review procedures set forth in this ORDER.

6. Following its approval or approval with unilateral modifications of the Draft Final RI Report and Draft Final FS Report, EPA will announce the availability of the reports to the public for review and comment. Following the public comment period (which may involve both written and oral comments), EPA will determine if the Final Draft RI Report and/or the Final Draft FS Report should be approved, disapproved, or modified, and will notify Respondents in writing of EPA's determination. In the event that EPA determines that either or both of the reports needs to be modified, EPA may either modify the report(s) unilaterally or request in writing that Respondents make such modifications. If EPA requests that Respondents make such modifications, within thirty (30) calendar days of receipt of EPA's notification, Respondents shall modify the report(s) as directed by EPA and shall submit the modified documents to EPA. Failure to do so shall be deemed a violation of this ORDER. Upon approval or unilateral modification by EPA, the modified documents shall be deemed the Final RI Report and the Final FS Report. EPA shall remain the final arbiter in any dispute regarding the sufficiency or acceptability of both the Final RI Report and Final FS Reports.

7. The Draft FS Report, Final Draft FS Report, and the Final FS Report shall not select a remedial alternative. EPA will make the final selection of the remedial alternative(s) to be implemented with respect to the Site.

E. Public Participation.

Respondents shall cooperate with EPA in providing information regarding the work to be performed pursuant to this ORDER to the public. As requested by EPA, Respondents shall participate in the preparation of such information for distribution to the public and in public meetings which may be held or sponsored by EPA to explain activities at or relating to the Site.

VIII. GENERAL PROVISIONS

A. Access, Document Availability, and Retention of Records.

1. Copies of all work plans, reports and any other documents required to be submitted to EPA under this ORDER shall be sent by certified mail or express mail to the following addresses:

four (4) copies: U. S. Environmental Protection Agency
Emergency and Remedial Response Division
New Jersey Compliance Branch
26 Federal Plaza
New York, New York 10278
Attn.: Project Manager - Kin-Buc Site

three (3) copies: Chief, Bureau of Federal Case Management
Division of Hazardous Waste Management
N.J. Department of Environmental Protection
CN 028
401 East State Street-Floor 5
Trenton, New Jersey 08625
Attn.: Case Manager - Kin-Buc Site

2. All documents produced by the Respondents and submitted to EPA or DEP in the course of implementing this ORDER shall be available to the public unless Respondents claim they are confidential using the procedures described in 40 C.F.R. Part 2. If such a claim is made with regard to any of the records or any other documents produced by the Respondents or their contractors, EPA will release such documents in accordance with the procedures stated in 40 C.F.R. Part 2, Subpart B and Section 104(e)(7) of CERCLA, 42 U.S.C. §9604(e)(7). No sampling, hydrological, geological, soil chemical analyses, groundwater quality data, or information specified under Section 104(e)(7)(F)(i)-(viii) of CERCLA, relating to the Site shall be considered confidential.

3. The Respondents shall allow EPA and EPA contractors and agents to have access to all records relating to implementation of the work under this ORDER. All such records shall be stored at a location in the State of New Jersey which is accessible to EPA officials. The Respondents shall make all such records available for any EPA or DEP official to review and copy within three days after receiving a request from EPA or DEP for access to such records. All employees and contractors of the Respondents who engage in any activity under this ORDER shall be available to and shall cooperate with EPA and EPA agents and contractors.

4. All data and information relating to the implementation of this ORDER shall be retained by Respondents for a period of ten (10) years after the effective date of this ORDER. The Respondents shall inform the EPA Project Manager and DEP contact in writing within ten (10) days of the effective date of this Order of the name and address of the person who will be charged with retaining these records and where they will be located during this ten (10) year period. Any and all such records are to be made available to EPA upon request during any business day throughout that period of time.

5. The Respondents shall allow unimpeded access to all areas of the Site and into all structures thereon by all EPA and DEP representatives, agents, contractors and consultants. The Respondents shall permit such EPA and DEP agents to enter and move about the Site at will at all times and shall allow such officials or agents of EPA or DEP to undertake any observations, response actions or any other activities which EPA or DEP elects

to undertake at the Site at its option, including but not limited to the following:

- a. Monitoring the progress of activities taking place;
 - b. Verifying any data or information submitted to EPA or DEP;
 - c. Conducting investigations relating to contamination at or near the Site;
 - d. Obtaining samples at the Site; and
 - e. Inspecting and copying records, operating logs, contracts, or other documents required to assess the Respondents' compliance with this ORDER.
6. Respondents shall make available to EPA and DEP as promptly as reasonably possible, the results of all sampling and/or tests or other data generated by Respondents with respect to the implementation of this ORDER.
7. At the request of EPA or DEP, the Respondents shall provide split or duplicate samples to EPA and DEP or allow split or duplicate samples to be taken by EPA or DEP or their authorized representatives of any samples collected by Respondents pursuant to the implementation of this ORDER. Respondents shall notify EPA and DEP not less than ten (10) days in advance of any sample collection activity. In addition, EPA and DEP representatives shall have the right to take any additional samples that they deem necessary.
8. Nothing in this ORDER shall be construed to limit EPA's or DEP's rights of access or rights to obtain information pursuant to applicable law.
9. The Respondents shall use their best efforts to obtain all access agreements which are needed to implement the terms of this ORDER. If, despite such best efforts, the Respondents cannot obtain any particular access agreement or access which is required for implementation of the terms of this ORDER, the Respondents shall so notify the EPA Project Manager in writing and shall specify the real property in question and the efforts which the Respondents have taken to obtain entry onto the property in question. If EPA determines that access onto any such property is needed to implement any of the terms of this ORDER and that Respondents have used their best efforts to obtain such access to no avail, EPA in its sole discretion may make reasonable efforts to facilitate access by the Respondents to that property. In that event, the Respondents shall continue to implement all terms of this ORDER which, in the view of EPA, can still be implemented regardless of any failure to obtain access to any property. However, failure of Respondents to gain access

shall not be construed as excusing performance by the Respondents of any of their obligations under this ORDER.

B. EPA Review of Submissions.

1. After review of any deliverable, plan, report or other item which is required to be submitted for review and approval pursuant to this ORDER, EPA may: (a) approve the submission; (b) approve the submission with modifications made unilaterally by EPA; (c) disapprove the submission and direct Respondents to re-submit the document after modifying the document in accord with EPA's comments and as directed by EPA; or (d) disapprove the submission and assume responsibility for performing all or any part of the response action. In the event of EPA disapproval pursuant to subsection (d), above, Respondents shall be deemed to be in violation of the relevant provisions of this ORDER for failure to make an adequate submission beginning on the day following the date the deliverable, plan, report or other item is due and on each and every day thereafter.

2. In the event of approval or approval with unilateral modifications by EPA of any submission or re-submission pursuant to this Section VIII.B, EPA will notify Respondents of such approval or approval with modifications, and the submission or re-submission shall be deemed final and effective the date EPA's notice of approval is signed. Following receipt of EPA's notice of approval, Respondents shall proceed to take any action required by the plan, report, or other item, as approved or modified by EPA. EPA shall remain the final arbiter in any dispute regarding the sufficiency or acceptability of any such plan, report or other item, and EPA may modify it unilaterally at any time by notifying Respondents of such modification.

3. In the event that EPA disapproves any submission and directs Respondents to re-submit such submission with modifications pursuant to Paragraph B.1(c), above, Respondents shall modify the submission in accord with EPA's comments and as directed by EPA, and shall submit the modified document to EPA within fifteen (15) calendar days of receipt of EPA's comments or within such other time period as EPA may specify in writing. Failure to make a timely and conforming re-submission in compliance with this Paragraph shall constitute a separate violation of this ORDER for each day such re-submission is late or remains deficient.

4. EPA may approve, approve with unilateral modifications, disapprove with a requirement for further modification, or disapprove any re-submission made pursuant to Paragraph B.3, above, in accordance with the procedures of this Section VIII.B, except that any EPA action in approving with unilateral modifications, disapproving, or disapproving with a requirement for further modification any such re-submission shall under no

circumstances be construed as relieving Respondents of liability for daily penalties and treble damages for failure to make a timely and conforming first re-submission pursuant to Paragraph B.3, above. Each subsequent late or deficient re-submission shall constitute a separate violation of Paragraph B.3, above.

5. EPA's comments pursuant to Paragraph B.1(c) and B.3, above, may require Respondents to perform such additional investigatory work, verification sampling, evaluations, or other response action as EPA may find necessary. Any such additional investigatory work or other response action, including any necessary work plans and reports, shall be performed by Respondents as directed by EPA and in accordance with any schedules specified by EPA. A requirement by EPA for additional investigatory work or other response action pursuant to this paragraph shall not excuse performance of any other obligation under this Section VIII.B and shall not be construed to alter in any way Respondents' obligations to make timely and conforming re-submissions pursuant to Paragraph B.3, above.

C. Amendments and Scope of Order Generally.

1. All reports, the SAP, EPA-approved Work Plans and other writings or amendments required under the terms of this ORDER shall, upon approval by EPA, be deemed incorporated into this ORDER and may be enforced as any other provision in this ORDER.

2. No informal advice, guidance, suggestions or comments by EPA or DEP officials shall be construed to relieve Respondents of any of their obligations under this ORDER.

3. Any and all modifications to this ORDER, approvals or disapprovals of submissions, or other communications from EPA to Respondents required by this ORDER, must be in writing and signed by the Chief, New Jersey Compliance Branch, Emergency and Remedial Response Division, U.S. EPA, Region II.

a. EPA shall have sole authority to make any modifications to the Final Operable Unit I RD/RA Work Plan and the Final Operable Unit II RI/FS Work Plan and any work plans or schedules submitted pursuant thereto, and EPA may unilaterally make any such modifications at any time prior to the completion of all work required by this ORDER.

b. EPA alone shall be the final arbiter of all issues and disputes concerning: i) any work plan, or other plan, deliverable or schedule which EPA approves or which the Respondents propose under the terms of this ORDER, and ii) all work which shall be required or performed under this ORDER or under any work plan, or other document which EPA approves pursuant to the terms of this ORDER.

D. Insurance and indemnification

All contractors and subcontractors the Respondents use for work at the Site must have adequate liability coverage or must be indemnified by the Respondents for any and all liability which may result from any activities at the Site pursuant to this ORDER.

E. Professional Standards, Permits and Compliance with other Laws

1. All work conducted pursuant to this ORDER shall be performed in accordance with prevailing professional standards.

2. All activities carried out by Respondents pursuant to this ORDER shall be done in accordance with all applicable federal, state and local laws, regulations, ordinances and other requirements.

3. All activities conducted by Respondents pursuant to this ORDER shall comply with the requirements of CERCLA, the NCP, and all applicable OSHA regulations for worker health and safety as found in 29 C.F.R. §1910 et seq., and elsewhere.

4. All materials removed from the Site shall be disposed of or treated at a facility approved by EPA's RPM and in accordance with Section 121(d)(3) of CERCLA, 42 U.S.C. Section 9621(d)(3), with the EPA "Revised Off-Site Policy," OSWER Directive 9834.11 (November 13, 1987) and/or any subsequent final EPA "off-site" guidance or policy documents, and with all other applicable federal, state and local requirements. All disposal of materials conducted by the Respondents pursuant to performing any work under this ORDER shall comply with all provisions of the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. §6901 et seq., the Toxic Substances Control Act ("TSCA"), 15 U.S.C. §2601 et seq., all regulations promulgated pursuant to both RCRA and TSCA, and all applicable state laws and regulations.

5. Respondents shall be responsible for obtaining all necessary federal, state and local permits, licenses and other governmental and private authorizations, including access agreements, needed to carry out the work required by this ORDER.

F. United States not Liable.

The United States Government and any and all agencies thereof shall not be liable for any injury or damage to any person or property resulting from any acts or omissions of any of the

Respondents and any employees, contractors, or agents of the Respondents while performing any activity related to this ORDER; the United States Government and any and all agencies thereof shall not be a party to any contract entered into by Respondents in carrying out any activity pursuant to this ORDER, and the Respondents shall not represent to anyone that the United States Government or any agency thereof is or may be a party to any such contract.

G. Noncompliance

1. Respondents shall use their best efforts to avoid or minimize any delay or prevention of performance of their obligations under this ORDER.

2. Any failure by Respondents to carry out any terms of this ORDER may result in EPA unilaterally taking or funding the actions required under this ORDER, pursuant to Section 104 of CERCLA, 42 U.S.C. §9604.

3. Any failure by Respondents to comply with any provision in this ORDER or any provision or schedule in any work plan or other document incorporated by reference or attached to this ORDER, including failure of any Respondent to cooperate with or assist any other Respondent in carrying out its obligations under this ORDER, shall be considered a violation of this ORDER.

4. If the Respondents violate any provisions of this ORDER, EPA may elect to:

a. Demand that the Respondents cease work at the Site; and/or

b. Use federal funds to complete the work required by this ORDER; and/or

c. Initiate an action against any or all of the Respondents under Sections 106(b), 107(a) and/or 107(c) of CERCLA, 42 U.S.C. §§9606(b), 9607(a), and/or 9607(c), respectively; and/or

d. Take any other actions authorized under federal laws or regulations.

5. Nothing stated in this ORDER shall preclude EPA from taking any additional enforcement actions, and/or any actions as it may deem necessary for any purpose, including the prevention or abatement of an imminent and substantial endangerment to the public health or welfare or the environment arising at or in the vicinity of the Site.

6. If EPA incurs any response costs as a result of the failure of the Respondents to comply with any schedules, terms or provisions of this ORDER, the Respondents shall be liable pursuant to §107(c) of CERCLA for treble damages for each and every dollar in response costs incurred by EPA as result of such failure to comply.

7. If the Respondents fail to comply with any of the provisions or schedules set forth in this ORDER each Respondent named in this ORDER shall be liable pursuant to §106(b) of CERCLA for a penalty of up to \$25,000 per day for each and every day of each violation of each provision of this ORDER in addition to the treble damages liability stated in Paragraph 6, above.

8. If Respondents fail to fully implement and satisfactorily complete all of the work set forth in this ORDER and in all EPA approved workplans and schedules attached hereto or incorporated herein on or before the date specified for such completion pursuant to this ORDER, each Respondent named in this ORDER shall be liable for a penalty of up to \$25,000 per day for such failure pursuant to §106(b) of CERCLA for each and every day after that date until all such work is completed by the Respondents to EPA's satisfaction.

H. Reservations of Rights

1. Nothing contained in this ORDER shall affect the right of EPA to initiate an action for civil penalties against any entity, including any of the Respondents, pursuant to Section 106(b) of CERCLA, 42 U.S.C. §9606(b).

2. Nothing contained in this ORDER shall affect the right of EPA to pursue an action against any entity, including any one or more of the Respondents (or any other responsible party), pursuant to Section 107(a) of CERCLA, 42 U.S.C. §9607(a), for recovery of any costs incurred by EPA relating to this ORDER and/or for any other response costs which have been incurred or will be incurred by the United States relating to the Site.

3. Nothing contained in this ORDER shall affect the right of EPA to enter into any Consent Decree, to issue any Consent Order or to issue any other Orders unilaterally to any or all of the Respondents (or to any other responsible parties for the Site) pursuant to CERCLA, or to initiate a judicial action to require the performance of any additional response actions which EPA determines are necessary for the Site.

4. Nothing contained in this ORDER shall act as a bar to, a release of, a satisfaction of, or a waiver of any claim or cause of action which EPA has at present or which EPA may have in the

future against any entity, including any or all of the Respondents, on any matters relating to the Site.

5. Nothing contained in this ORDER shall be construed to mean that the Respondents are the only potentially responsible parties with respect to the release and threatened release of hazardous substances at the Site.

6. Nothing contained in this ORDER shall affect any right, claim, interest, defense, or cause of action of EPA or the Respondents with respect to any entity which is not a party to this ORDER. Nothing in this ORDER constitutes a decision by EPA on pre-authorization or on any approval of funds under Section 111(a)(2) of CERCLA, 42 U.S.C. §9611(a)(2).

7. This ORDER and all EPA-approved work plans, specifications, and other documents approved by EPA, prepared in compliance herewith, shall be enforceable pursuant to Sections 106(b) and 113(b) of CERCLA, 42 U.S.C. §9606(b) and §9613(b), respectively.

8. Nothing contained in this ORDER shall preclude the State of New Jersey or any agency or department thereof from taking or maintaining any enforcement action or litigation relating to the Site, including issuing any directive pursuant to State law relating to the Site.

I. Notification and Reporting Requirements.

1. Respondents shall provide monthly progress reports to EPA and DEP as provided herein by the tenth (10th) day of every month following the effective date of this ORDER. At a minimum, the progress reports shall: (1) describe all activities undertaken by the Respondents pursuant to the terms of this ORDER during the month immediately preceding the date of submission of the report; (2) identify all activities which will be undertaken by the Respondents in the next month in order to comply with all terms of this ORDER; (3) identify potential delays, if any, which the Respondents foresee in completing the work required by this ORDER; (4) include all the results of sampling and tests and all other data received by Respondents in the preceding month; and (5) provide a quantified estimate of the percentage of work which is required by the ORDER which has been completed as of the date of submission of the progress report to EPA.

2. Upon the completion of all of the work required by this ORDER, the Facility Coordinator designated by the Respondents shall notify the EPA Project Manager and the state contact in writing by registered mail that all of the work required by this ORDER has been completed.

J. EPA Periodic Review.

Under Section 121(c) of CERCLA, 42 U.S.C. Section 9621(c), and any applicable regulations promulgated thereunder, EPA may review the Site to assure that the work performed pursuant to this ORDER adequately protects human health and the environment. Until such time as EPA certifies completion of the work performed pursuant to this ORDER for which such certification is appropriate, Respondents shall conduct the requisite studies, investigations, or other response actions as determined necessary by EPA in order to permit EPA to conduct reviews under Section 121(c) of CERCLA. As a result of any review performed under this paragraph, Respondents may be required to perform additional response actions or to modify work previously performed or to be performed pursuant to this ORDER.

K. Additional Response Action.

EPA may determine at any time that in addition to the response action required by this ORDER and all attachments hereto or documents incorporated herein by reference, additional response action, including but not limited to additional investigatory work or additional response action (whether or not identified during the review process under Section 121(c) of CERCLA), is necessary to meet relevant performance standards, protect human health or the environment, or determine the nature and extent of contamination related to the Site. At such time as EPA makes such a determination, EPA may notify the Respondents. Respondents shall submit to EPA a written, unequivocal and unconditional commitment to perform such additional response action within seven (7) calendar days after receipt of EPA's notice of the necessity for additional response action. Within thirty (30) calendar days of receipt of EPA's notice or within such other time period as EPA may specify, the Respondents shall submit a work plan, including a schedule, for performance of such additional response action. EPA will review the work plan in accordance with the procedures set forth herein for EPA review of submissions. Respondents shall implement the work plan following EPA's approval or EPA's approval with unilateral modifications in accordance with those procedures.

L. Endangerment and Emergency Response.

1. In the event of any action or occurrence during the performance of Respondents' obligations under this ORDER which causes or threatens to cause a release of a hazardous substance or which may present an immediate threat to public health or welfare or the environment, Respondents shall immediately take all appropriate response action to prevent, abate, or minimize the threat, and shall immediately notify EPA's Remedial Project

Manager (RPM). If EPA's RPM is not available, Respondents shall notify the Emergency Response Unit, EPA Region II.

2. Respondents shall take such response action in consultation with EPA's RPM and in accordance with all applicable provisions of this ORDER, including but not limited to the Health and Safety Plan and the Contingency Plan.

3. Nothing in this Section shall be deemed to limit any authority of the United States to take, direct, or order all appropriate action to protect human health and the environment, or to prevent, abate, or minimize an actual or threatened release of hazardous substances on, at, or from the Site.

IX. OPPORTUNITY TO CONFER

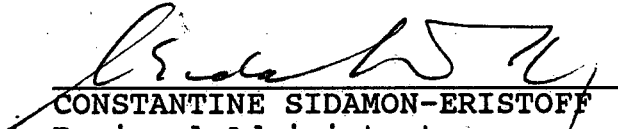
Respondents may confer with EPA to discuss this ORDER, including its applicability, the FINDINGS upon which the ORDER is based, the appropriateness of any action or activity required to be undertaken herein, or any other relevant issues or contentions which the Respondents may have with regard to this ORDER at the conference with EPA which has been scheduled as noted in the transmittal letter which accompanies this ORDER. This conference is not and shall not be deemed to be an adversary proceeding or part of a proceeding to challenge this ORDER.

X. EFFECTIVE DATE

This ORDER shall become effective on the tenth (10th) day following the date it is signed by the Regional Administrator as indicated below.

IT IS SO ORDERED:

U.S. ENVIRONMENTAL PROTECTION AGENCY


CONSTANTINE SIDAMON-ERISTOFF
Regional Administrator
U.S. Environmental Protection Agency
Region II
New York, New York 10278

DATE 9/21/90

SCHEDULE FOR THE KIN-BUC LANDFILL SITE OPERABLE UNIT 1 RD/RA

I. Project Schedule for Additional Studies

TASK	REQUIREMENT
1.0 Subsurface Investigation along Clay Cut-off Wall Alignment	Report due November 1, 1989 ¹
2.0 Evaluate Pumping Requirements for Sand and Gravel Aquifer, including;	Report due 15 days after the effective date of the Order ²
2.1 Determine Existing and Potential Future Site Hydraulic Relationships	
2.2 Evaluate Existing Water Quality in the Sand and Gravel & Bedrock	
2.3 Assess the Potential Future Impact to Water Quality in the Sand and Gravel and Bedrock Units	
3.0 Evaluate the Areal Extent of Contamination to Select the Horizontal Wall Alignment	Report due June 15, 1990 ³
4.0 Refine Aqueous and Oil Collection Estimates	Report due 15 days after the effective date of the Order ²
5.0 Evaluate the Integrity of the Existing Kin-Buc I Final Cover/Cap	Report due 15 days after the effective date of the Order ²
6.0 Evaluate the Suitability of On-site Clay for Cap Material	Report due December 15, 1989 ⁴

Footnotes

1. Actual submission on July 16, 1990
2. Administrative Order Index No. II-CERCLA-00114
3. Actual submission on August 9, 1990
4. Actual submission on July 16, 1990

TASK	REQUIREMENT
7.0 Determine Location of On-site Treatment Facility, including;	Report due 15 days after the effective date of the Order ²
7.1 Siting Evaluation	
7.2 Soils Investigation	
8.0 Aqueous Treatment Evaluation, including;	
8.1 Representative Leachate Sample Collection, Analysis & Evaluation	
8.2 Evaluate Alternatives and Prepare Plan for Treatability Study	Plan due 15 days after the effective date of the Order ²
8.3 Treatability Study	This Subtask is to be initiated within 7 days of EPA's approval of the Treatability Study Work Plan. The Treatability Study is to be completed within 75 days of initiation.
8.4 Results Evaluation and Treatment Option Selection	This Subtask is to be completed and a report submitted to EPA within 45 days of completion of the Treatability Study
9.0 Assess the Potential Impact to Wetlands from Remedial Construction	Report due within 30 days of receipt of EPA's comments on the report to Determine Location of On-site Treatment Facility (Task 7.0)
10.0 Compatibility Testing of Proposed Slurry Wall Backfill-Bentonite Materials with Landfill Leachate	Report due January 15, 1991

Footnote

2. Administrative Order Index No. II-CERCLA-00114

TASK	REQUIREMENT
11.0 Site Reconnaissance Along the Proposed Wall Alignment	This Task is to be initiated within 15 days of receipt of EPA's comments on the Evaluation of the Areal Extent of Contamination to Select the Horizontal Wall Alignment. This Task is to be completed within 15 days of initiation.
12.0 Borings Along the Slurry Wall Alignment	This Task is to be initiated within 15 days of receipt of EPA's comments on the Evaluation of the Areal Extent of Contamination to Select the Horizontal Wall Alignment. This Task is to be completed and a report submitted to EPA within 60 days of initiation.

II. Project Schedule for Clay Cut-off Wall Remedial Design

TASK	REQUIREMENT
1.0 Preliminary Submission, including;	
1.1 Evaluation of the Results of Field Investigation	November 1, 1989 ⁵
1.2 Construction Plans and Specifications	Report due 15 days after the effective date of the Order ²
2.0 Prefinal Submission, including;	The Prefinal Submission is due within 15 days of receipt of EPA's comments on the Preliminary Submission (Task 1.0)
2.1 Construction Plans and Specifications	
2.2 Cost Estimates	
2.3 Operation & Maintenance Plan	
2.4 Quality Assurance Project Plan for Construction	
2.5 Site Safety Plan for Construction	
3.0 Final Submission, including;	The Final Submission is due within 15 days of receipt of EPA's comments on the Prefinal Submission (Task 2.0)
3.1 Construction Plans and Specifications	
3.2 Cost Estimates	
3.3 Operation & Maintenance Plan	
3.4 Quality Assurance Project Plan for Construction	
3.5 Site Safety Plan for Construction	

Footnotes

2. Administrative Order Index No. II-CERCLA-00114
5. Actual submission on August 9, 1990

III. Project Schedule for Slurry Wall Containment and Collection System Remedial Design

TASK	REQUIREMENT
1.0 Preliminary Submission - Construction Plans and Specifications	Preliminary Submission is due within 30 days of receipt of EPA's comments on the Evaluation of the Areal Extent of Contamination to Select the Horizontal Wall Alignment
2.0 Intermediate Submission - Construction Plans and Specifications	Intermediate Submission is due within 60 days of completion of Borings Along the Slurry Wall Alignment
3.0 Prefinal Submission, including;	The Prefinal Submission is due within 60 days of receipt of EPA's comments on the Intermediate Submission (Task 2.0)
3.1 Construction Plans and Specifications	
3.2 Cost Estimates	
3.3 Operation & Maintenance Plan	
3.4 Quality Assurance Project Plan for Construction	
3.5 Site Safety Plan for Construction	
4.0 Final Submission, including;	The Final Submission is due within 60 days of receipt of EPA's comments on the Prefinal Submission (Task 3.0)
4.1 Construction Plans and Specifications	
4.2 Cost Estimates	
4.3 Operation & Maintenance Plan	
4.4 Quality Assurance Project Plan for Construction	
4.5 Site Safety Plan	

TASK	REQUIREMENT
5.0 Permits/Approval Assistance	Identification and application for all necessary permits/approvals is to be initiated within 15 days of this Order ²

Footnote

2. Administrative Order Index No. II-CERCLA-00114

IV. Project Schedule For Aqueous Pretreatment/Treatment Facilities Design

TASK	REQUIREMENT
1.0 Preliminary Submission - Construction Plans and Specifications	The Preliminary Submission is due within 30 days of receipt of EPA's comments on the Results Evaluation and Treatment Option Selection Report
2.0 Intermediate Submission - Construction Plans and Specifications	The Intermediate Submission is due within 30 days of receipt of EPA's comments on the Preliminary Submission (Task 1.0)
3.0 Prefinal Submission, including;	The Prefinal Submission is due within 45 days of receipt of EPA's comments on the Intermediate Submission (Task 2.0)
3.1 Construction Plans and Specifications 3.2 Cost Estimates 3.3 Operation & Maintenance Plan 3.4 Quality Assurance Project Plan for Construction 3.5 Site Safety Plan for Construction	
4.0 Final Submission, including;	The Final Submission is due within 45 days of receipt of EPA's comments on the Prefinal Submission (Task 3.0)
4.1 Construction Plans and Specifications 4.2 Cost Estimates 4.3 Operation & Maintenance Plan 4.4 Quality Assurance Project Plan for Construction 4.5 Site Safety Plan for Construction	
5.0 Permit/Approvals Assistance	This Task will continue as necessary throughout the RD

SCHEDULE FOR THE KIN-BUC LANDFILL SITE OPERABLE UNIT 2 RI/FS

I. Project Schedule for the Remedial Investigation

<u>TASK</u>	<u>REQUIREMENT</u>
1.0 Draft Remedial Investigation Report	Report due 15 days after the effective date of the Order ¹
2.0 Draft Final Remedial Investigation Report	Report due 15 days after receipt of EPA's comments on the Draft Remedial Investigation Report

Footnote

1. Administrative Order Index No. II-CERCLA-00114

II. Project Schedule for the Feasibility Study

TASK	REQUIREMENT
1.0 Description of Current Situation and Remedial Action Objectives (Chapter 1.0)	Submission due within 15 days of the effective date of the Order ¹
2.0 Identification and Screening of Remedial Action Technologies (Chapter 2.0)	Submission due within 21 days of the effective date of the Order ¹
3.0 Development and Screening of Alternatives (Chapter 3.0)	Submission due within 42 days of the effective date of the Order ¹
4.0 Detailed Analysis of Alternatives (Chapter 4.0)	Submission due within 84 days of the effective date of the Order ¹
5.0 Draft Final Feasibility Study Report	Submission due within 105 days of the effective date of the Order ¹
6.0 Revised Draft Feasibility Study Report	Submission due 15 days after receipt of EPA's comments on the Draft Final Feasibility Study Report

Footnote

1. Administrative Order Index No. II-CERCLA-00114